

SERVICE CONTINUES TO EXPAND NON-TOXIC SHOT OPTIONS AS STUDY SHOWS BAN ON LEAD SHOT SAVES MILLIONS OF WATERFOWL

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A new study suggests that the U.S. Fish and Wildlife Service's 1991 nationwide ban on the use of lead shot for waterfowl hunting has had remarkable success, preventing the premature deaths of millions of waterfowl from lead poisoning.

The study, "Ingestion of Lead and Nontoxic Shotgun Pellets by Ducks in the Mississippi Flyway," was funded in part by the Service's Great Lakes and Southeast Regional offices and published this summer in the *Journal of Wildlife Management*. In order to gauge the effect of the ban on lead shot, researchers examined thousands of ducks harvested in the Mississippi Flyway during the 1996 and 1997 waterfowl seasons, the fifth and sixth seasons after the 1991 ban on lead shot.

Based on the survey's findings, researchers William L. Anderson of the Illinois Department of Natural Resources and Stephen P. Havera and Bradley W. Zercher of the Illinois Natural History Survey estimate that the ban on lead shot reduced lead poisoning deaths of Mississippi Flyway mallards by 64 percent, while overall ingestion of toxic pellets declined by 78 percent over previous levels.

The report concludes that by significantly reducing lead shot ingestion in waterfowl, the ban prevented the lead poisoning deaths of approximately 1.4 million ducks in the 1997 fall flight of 90 million ducks. In addition, the researchers state that approximately 462,000 to 615,000 acres of breeding habitat would have been required to produce the same number of birds that potentially were saved by nontoxic shot regulations that year. With the ban now entering its ninth year, ingestion of lead shot has probably continued to decline from the levels documented in the study, preventing an increasing number of lead poisoning deaths.

"The results of this important report suggest that the ban on lead shot has been a resounding success for the health of waterfowl populations, and has almost certainly contributed to the record numbers of waterfowl we have seen in recent years. I'm proud that the Service took the initiative in phasing out lead shot for waterfowl hunting, and continues to expedite the approval of nontoxic alternatives to lead shot for hunters," said Service Director Jamie Rappaport Clark.

On September 25, the Service published a proposed rule to extend temporary approval of tin shot for the 2000-2001 hunting season. Permanent approval was given to tungsten-matrix shot on September 6, giving hunters a choice of five nontoxic shots for the upcoming season. In addition to steel and tungsten-matrix shot, hunters can also use tungsten-iron, tungsten-polymer and bismuth-tin shot.

Tungsten-matrix shot, manufactured by the Kent Cartridge Manufacturing Co. of Kearneysville, West Virginia, was given temporary approval for the previous two seasons while testing was completed. The International Tin Research Institute, based in Oxbridge, England, was also given temporary approval for tin shot for parts of the past two seasons. If temporary approval is extended to tin shot for the upcoming season, hunters will have a choice of six

nontoxic shots .

Clark pointed out that the ban on lead shot has probably also benefitted more than 27 other bird species in which lead poisoning has been documented, including bald eagles . Bald eagles have been found to be particularly vulnerable to lead poisoning because they often feed on the carcasses of hunter-crippled and lead-poisoned waterfowl.

"In addition, the study demonstrates what we've known for some time - that the vast majority of hunters have acted responsibly and ethically to reduce lead poisoning in waterfowl by complying with the law," said Clark, noting that only 1.1 percent of examined ducks showed evidence of being shot with lead.

The majority of birds examined by the researchers showed no evidence of ingesting shot pellets, with ingestion rates ranging from 4.3 percent for scaup to 12.7 percent for ring-necked ducks. Shot pellets were found in the gizzards of 8.9 percent of mallards. Researchers found that of birds with shot pellets in their gizzards, 68 percent of mallards, 71 percent of canvasbacks, 44 percent of scaup and 45 percent of ring-necked ducks contained no evidence of toxic lead shot pellets. The gizzards of the remaining birds contained one or more lead shot pellets, sometimes mixed with non-toxic shot pellets .

Studies have suggested for decades that lead poisoning is a serious problem for waterfowl. Ducks regularly grub for food on the bottoms of lakes, streams and wetland habitat, and also ingest gravel that is used in the gizzard to help grind up food for digestion. They are therefore vulnerable to ingesting spent lead pellets that settle on the bottom of waterways and wetlands. A 1959 study, also by the Illinois Natural History Survey, estimated that 2 to 3 percent of the North American waterfowl population was killed annually by lead poisoning between 1938 and 1954.

Efforts to phase out lead shot began in the 1970s, but a nationwide ban on lead shot for all waterfowl hunting was not implemented until 1991. Canada instituted a complete ban on the use of lead shot in 1999, after banning its use near bodies of water and on national wildlife areas earlier.

The U.S. Fish and Wildlife Service is the principal Federal agency responsible for conserving, protecting, and enhancing fish, wildlife and plants and their habitats for the continuing benefit of the American people. The Service manages the 93- million-acre National Wildlife Refuge System comprised of 531 national wildlife refuges, thousands of small wetlands, and other special management areas. It also operates 66 national fish hatcheries, 64 fish and wildlife management assistance offices and 78 ecological services field stations. The agency enforces Federal wildlife laws, administers the Endangered Species Act, manages migratory bird populations, restores nationally significant fisheries, conserves and restores wildlife habitat such as wetlands, and helps foreign governments with their conservation efforts. It also oversees the Federal Aid program that distributes hundreds of millions of dollars in excise taxes on fishing and hunting equipment to State fish and wildlife agencies.